



EASTERN RESEARCH GROUP, INC.

## M E M O R A N D U M

TO: George Smith, U.S. Environmental Protection Agency

FROM: Chad White, Eastern Research Group

DATE: May 19, 1997

SUBJECT: Final Summary of April 23, 1997, Incinerator Work Group Meeting

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### 1.0 INTRODUCTION AND PURPOSE OF MEETING

The April 23 meeting was the sixth meeting of the Incinerator Work Group for the Industrial Combustion Coordinated Rulemaking (ICCR). The purpose of this meeting was to receive subteam status reports, to discuss review of EPA's ICCR database (ICCR database), and to begin evaluating the potential incinerator subcategories.

### 2.0 LOCATION AND DATE

This Work Group meeting was held via teleconference from 12:00 pm until 3:00 pm on April 23, 1997. A copy of the draft meeting agenda is included as attachment 1.

### 3.0 ATTENDERS

The Incinerator Work Group meeting was open to the public. Participants at the meeting included representatives of the EPA, industry, State and local governments, and the environmental community. A copy of the attendance list for the meeting is included as attachment 2. A copy of the Incinerator Work Group membership list is included as attachment 3.

#### 4.0 DISCUSSION

After brief introductions, the Work Group received updates about the Coordinating Committee meeting in July and how the Federal Advisory Committee Act (FACA) affects the ICCR. The Work Group also received reports from each of the subteams established at the March 11 Work Group meeting in Orlando. After each report Work Group members were given the opportunity to ask questions or raise issues about the data review being performed by the subteams. These discussion topics are summarized in the sections that follow.

#### 4.1 Updates from EPA

EPA representatives provided updates about several issues, including sensitivity to the ICCR FACA charter, small business information, the status of the ICCR database, EPA's review of the definition of "solid waste," and the upcoming Coordinating Committee meetings.

##### 4.1.1 FACA Rules

George Smith explained that, although the Incinerator Work Group is not a committee chartered under FACA as the Coordinating Committee is, the procedures and protocols set by FACA will be followed by the Work Group insofar as possible. After closer examination, EPA has determined that some additional guidelines should be followed to meet the requirements of a FACA-like group. Therefore, the Designated Federal Official (the EPA Co-chair) will open and close all meetings. The EPA Co-chair will also certify the minutes of meetings.

##### 4.1.2 Small Business Information

As a part of the analyses performed during regulatory development, EPA examines the impact of regulation on small business, as required by the Small Business Regulatory

Enforcement Fairness Act (SBREFA). George Smith explained that he would be sending out a form for each Work Group members to fill out. Work Group members should indicate on the form the types of small business they represent. Mr. Smith asked that each Work Group member complete the survey and return it to him in a timely manner. Anyone with questions regarding this form should contact to Mr. Smith directly (via phone).

#### 4.1.3 ICCR Database

Version 2 of the ICCR database has been released. The database can be downloaded from the TTN or via the FTP site. Copies of the database are also available for order on CD. The Work Group was reminded that changes to the data in the database should be given to the EPA Co-chair, and EPA will make any necessary changes.

#### 4.1.4 Definition of "Solid Waste"

Fred Porter of EPA provided a brief update on EPA's discussions regarding the Agency's flexibility in defining "solid waste" under section 129 of the Clean Air Act. The EPA has determined that it is within its authority to develop a definition of "solid waste" for use under section 129. For now, discussion of this regulatory definition has concluded until issues regarding this definition have been identified by the ICCR.

#### 4.1.5 Coordinating Committee Meetings

On EPA's behalf John Huyler, the meeting facilitator, provided an update on the May Coordinating Committee meeting. It has been decided that the meeting will be held on one day, May 21, only. A copy of the agenda for this meeting is still undergoing review but should be available on the TTN relatively soon.

## 4.2 Subteam Status Reports

At its March 11 meeting the Incinerator Work Group decided to form subteams to examine the incinerators in the ICCR database in a line-by-line fashion. These subteams were tasked to check the quality and accuracy of data in the database and to group incinerators into potential subcategories for regulation. At this meeting each subteam provided a status report on its progress. These reports are summarized in the succeeding sections.

### 4.2.1 Subteam 5 Status Report

George Smith of EPA provided a status report from Subteam 5. A copy of Subteam 5's database search criteria and protocol were presented to the Work Group prior to the meeting and have been included in attachment 4. Mr. Smith explained that subteam 5 has planned its initial query of incinerators in the ICCR database. Searches will be conducted by keywords on certain fields, by source classification code (SCC), and by standard industrial classification (SIC). EPA's contractor will perform the initial database query and generate a report for the subteam to begin its quality assurance (QA) review of the data.

After the database query has been completed, copies of the results will be distributed to the Work Group members as reports in Microsoft Access, Microsoft Excel, or hard copy format.

In reference to the report Subteam 5 circulated prior to the meeting, Jeff Shumaker asked why Subteam 5 was using keyword searches to query the database. George Smith responded that the keywords are being used to focus the search criteria. The keyword searches on certain fields (e.g., plant description, combustor description, etc.) will help extract only those units relevant to the subteam's interests.

George Smith asked the Work Group if use of EPA's contractor to support Subteam 5 appeared to be an inequitable distribution

of resources among the subteams. Members of the other subteams did not feel that Subteam 5's use of EPA's contractor was unfair; however, some subteams asked that the database expertise of EPA's contractor be made available to any subteam who requested assistance with initial database query. Subteams 2 and 4 declined the offer of EPA's contractor assistance. Subteams 1 and 3 asked that contractor help be given to them for their initial searches.

#### 4.2.2 Subteam 4 Status Report

Andy Roth of RAPCA provided a status report from Subteam 4. Subteam 4 has performed an initial database query by major SIC groupings (i.e., 2-digit groupings from 33 to 39 plus 99) on version 1 of the ICCR database. The initial query results generated a list of about 800 incinerators, but this list may be paired-down to around 400 incinerators once duplicates are removed. The subteam has begun its line-by-line review and is preparing to query version 2 of the ICCR database.

Subcategory groupings and model plants for metal-burning incinerators are beginning to emerge from the list of units generated from the ICCR database query. The subteam has observed that most of the metal-burning incinerators and burnoff ovens are relatively small and are generally rated at around 1-5 MMBtu/hr. Mr. Roth commented that several members of the subteam have been instrumental in collecting and analyzing information to aid these subteam efforts.

George Smith mentioned that EPA has received comments from scrap metal recyclers about the section 129 exemptions for metal-burning incinerators and the interpretation of these exemptions. These issues will need to be reviewed by this subteam as well as the Work Group in order to make scoping and regulatory recommendations to the Coordinating Committee. Mr. Smith pointed

out that metal-burning incinerators not recommended for regulation under section 129 may be below the size cutoff for regulation under section 112. Andy Roth responded that, from the perspective of a local government agency, many of the smaller sources may be worth regulating. Even small metal-burning incinerators are a source of many public complaints about odor, opacity, and other problems. Ruth Mahr added that, although there may be significant dispersion of the emissions from metal-burning incinerators, dispersion is not necessarily a solution and suggested that alternatives to burning the metal wastes might be considered.

#### 4.2.3 Subteam 3 Status Report

Dennis Marietta of La-Z-Boy Furniture Company provided a status report from Subteam 3. Subteam 3 has not yet begun a query of the ICCR database but has been developing its database search criteria. The subteam has generated a list of SICs that will be used to query the database for incinerators burning wood and wood-based products. The subteam has also been working to coordinate its efforts with those of the Boiler Work Group subgroup investigating wood-burning boilers.

Jeff Shumaker commented on the need to define "clean wood" and to consider whether and how burning of clean wood should be regulated as a "solid waste." The Work Group decided that EPA should prepare a status report on its review of the section 129 definition of "solid waste" and present this report at the May 8 Work Group meeting.

#### 4.2.4 Subteam 2 Status Report

Norman Morrow of Exxon Chemical Americas provided a status report from Subteam 2. Subteam 2 has conducted initial queries of version 1 of the ICCR database on various SIC groupings (13,

28, 29, and 30). This subteam has decided to query the entire database because of concerns that a significant number of incinerators are misclassified as process heaters or boilers.

The subteam has found it difficult to subcategorize some incinerators based on existing descriptive information. For example, fuel information is missing for a large number of incinerators. In addition, some fields containing data appear to have been truncated. Subcategorization of these incinerators may need to wait until information from the ICCR questionnaires is available.

The subteam has found that there are not many incinerators that fall within its category. Many of the units listed as incinerators appear to be process heaters instead. As a result, the subteam expects its category to be a relatively small one. The next step for the subteam is to query version 2 of the database. Pending completion of this query and examination of the data, the subteam hopes to have initial subcategorizations by the May 8 Work Group meeting.

#### 4.2.5 Subteam 1 Status Report

Paul Rahill of Industrial Equipment and Engineering Company provided a status report from Subteam 1. Subteam 1 has not begun a query of the ICCR database but has been preparing its database search criteria. Comments are being solicited from the subteam on keywords and SICs to use for the queries. The subteam believes that it has the expertise on the subteam that it needs to handle the incinerators in its category.

Subteam 1 has been collecting data other than that in the ICCR database through organizations and resources available to subteam members. The Cremation Association of North America (CANA) has provided a list of crematories for the subteam. These data are being used to check the accuracy of the data in the ICCR database.

Data on pathological waste incinerators have also been supplied to Subteam 1 by Rick Copeland of EPA. From the data provided, there appear to be quite a few pathological incinerators in operation.

Larry Thompson added that there is no formal database compiled of incinerators at major veterinary colleges. Dr. Thompson is working through his associations to compile a list of animal crematories and estimates that there may be as many as 150 of such units in operation. As a side note, Dr. Thompson mentioned that animal bedding appears to be burned in incinerators along with animal carcasses when the bedding is "contaminated."

George Smith asked if, based on the information collected through these associations, the data compiled by EPA in the ICCR database appear to be correct. Paul Rahill responded that the information in the database has been consistent for all the data that have been checked so far.

#### 4.3 Agenda Items for the Next Meeting

Potential topics to be included on the agenda for the May 8 Work Group meeting were discussed. The following agenda items were suggested:

- status reports from the subteams
- the plan and schedule for developing recommendations to present to the Coordinating Committee at its July meeting
  - subcategorization
  - solid waste definition
  - section 112 and section 129 applicability

Subteam leads should communicate to the Co-chairs any additional agenda topics by April 29.



## 5.0 ACTION ITEMS

George Smith will email a small business information form to all Incinerator Work Group members. Work Group members were asked to complete and return this form to George Smith by the May 8 meeting. Work Group members who cannot receive files by email were asked to contact George Smith to receive a faxed copy of the form.

EPA will prepare a status report on its review of the section 129 definition of solid waste to be presented at the May 8 Work Group meeting.

George Smith will forward a copy of the summary from Subteam 2's April 22 meeting to the entire Work Group.

Work Group members should provide any potential agenda items for discussion at the May 8 meeting to the Work Group Co-chairs by Tuesday, April 29.

George Smith of EPA solicited feedback from the Work Group members about the usefulness of meeting by teleconference instead of in person. Anyone wishes to express an opinion about meeting by teleconference instead of in person should contact Mr. Smith.

## 6.0 NEXT MEETINGS

George Smith asked the Work Group to consider rescheduling the July Work Group meeting for July 23 so that the Work Group could meet immediately after the Coordinating Committee meeting on July 21 and 22. The Work Group decided that meeting on July 15 was preferable given the goal of presenting scoping recommendations to the Coordinating Committee at its July meeting. Therefore, the Work Group decided to retain its meeting schedule as set at the March 11 meeting and will review this schedule at its next meeting on May 8. The schedule is as follows:

- May 8, 9am-4pm EST: Work Group meeting to be held in Research Triangle Park, North Carolina, at EPA's Environmental Research Center (ERC) Annex
- June 4: Work Group meeting (location to be decided at May 8 meeting; tentative plans have been made to hold this meeting in person in Research Triangle Park, North Carolina)
- July 15: Work Group meeting (no location chosen)
- Sept 10: Work Group meeting (no location chosen)

**These minutes represent an accurate description of matters discussed and conclusions reached and include a copy of all reports received, issued, or approved at the April 23, 1997, meeting of the Incinerator Work Group. George Smith, EPA Co-chair.**

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## ATTACHMENTS

Attachment 1: Draft Meeting Agenda

Attachment 2: Meeting Attenders

Attachment 3: Incinerator Work Group Membership List

Attachment 4: Subteam 5 Report

## **Attachment 1: Draft Meeting Agenda**

### INCINERATOR WORK GROUP TELECONFERENCE

April 23, 1997; 12pm - 5pm, EDT

Call-in Number: (919) 541-4485

- 12:00-12:20 INTRODUCTION AND WELCOME (George Smith)
- Introduction of new members
  - Status of EPA's ICCR Database
- 12:20-12:40 SUBTEAM 5 REPORT (George Smith)
- Discussion Topics
    - Question about use of EPA contractor: should EPA's contractor be used to do the initial database searches for the subteams?
    - Alternative data sources (other than EPA's ICCR database) for the Work Group and Subteams to use (e.g., SWANA may provide information about landfill gas flares)
- 12:40-1:00 SUBTEAM 4 REPORT (Andy Roth)
- 1:00-1:20 SUBTEAM 3 REPORT (Dennis Marietta)
- 1:20-1:40 SUBTEAM 2 REPORT (Bob Morris)
- 1:40-2:00 SUBTEAM 1 REPORT (Paul Rahill)
- 2:00-2:15 UPDATE ON MAY COORD. COMM. MEETING (John Huyler)
- Changes to meeting date(s), schedule, etc.
- 2:15-2:45 AGENDA FOR MAY 8 WORK GROUP MEETING (Norm Morrow)
- Discussion Topics
    - Expected Subteam progress
    - Important issues/topics for CC report in May
- 2:45-3:00 FUTURE MEETINGS (John Huyler)
- Discussion Topics
    - Hold the June 4 meeting as a teleconference
    - Location of the July 15 meeting
- 3:15-3:30 APPROVAL OF FLASH MINUTES

**Attachment 2: Meeting Attenders**

Name	Affiliation
Sandra Birckhead	Glaxo Wellcome
Roy Carwile	ALCOA
John Huyler	The Keystone Center
Dennis Marietta	La-Z-Boy Chair Company
Ruth Mahr	environmental interests
David Marrack	Galveston-Houston Association for Smog revention
Norman Morrow	Exxon Chemical Americas
George Parris	American Wood Preservers Institute
Fred Porter	U.S. EPA/OAQPS
Paul Rahill	Industrial Equipment and Engineering Company
John Ramsey	Kansas Department of Health and Environment
Andrew Roth	Regional Air Pollution Control Agency (Dayton, Ohio)
Jeff Shumaker	International Paper
George Smith	U.S. EPA/OAQPS
Larry Thompson	Cornell University, College of Veterinary Medicine
Dick Van Frank	National Audubon Society
Greg Vogt	SCS Engineers
Tom Waddell	Eastern Research Group, Inc.
Dale Walter	Industrial Equipment and Engineering Company
Ed Wheless	Los Angeles County Sanitation District
Chad White	Eastern Research Group, Inc.
William Wiley	Consumat Systems, Inc.

**Attachment 3: Incinerator Work Group Membership List**

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Incinerator Work Group Membership  
as of April 23, 1997

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## Attachment 4: Subteam 5 Report

### Activities to Conduct

1. QA to categorize/organize the incinerators in the database
2. QA to assure the accuracy of information needed to develop model plants and to identify data gaps
3. Develop model plants

Initially, the subteam needs to focus on identifying the incinerators (i.e., fiberglass incinerators, concrete incinerators, landfill gas flares, municipal waste combustors, and municipal-type waste combustors) that fall within its charge (step 1 above).

### ***What Data Should Be Checked?***

Subteam 5 decided to identify the fields in the ICCR database that will be most helpful in categorizing incinerators into subgroups for subteam consideration. A query will be performed to extract these fields from the database for the subteam to examine. The fields identified are listed below:

DATABASE TABLE NAME	DATABASE FIELD NAME
General Facility	Plant Description Plant Name
SIC	SIC (standard industrial classification)
Inventory	Combustor Description Capacity Capacity Units
Fuel	Fuel Type SCC (source classification code)
Waste Burned	Waste Description

### ***How Should We Find the Units of Interest to this Subteam?***

The database will be queried by the standard industrial classifications (SICs), SCCs, and keywords listed below. The query will be used to generate a report that can be viewed in Access, loaded into other software programs (e.g., Excel), or printed for review by members of the subteam.

#### **Keywords** (to be searched on the fields listed above)

solid waste	landfill gas flare
fiberglass	landfill gas
municipal waste	municipal waste combustor
municipal solid waste	municipal waste combustion
concrete	cement
incinerator	sludge

**SCCs:** see attachment pages 2-3

**SICs:** see attachment page 4

## SCCs Grouped by Common Elements (Excerpt From 3/11/97 Meeting Handout)

*Note: many SCCs are listed under more than one category; SCCs may contain a diversity of units*

SCC	Number of Units	SCC Description
<b>Concrete</b>		
30590013	11	Industrial Processes, Mineral Products, Fuel Fired Equipment, Natural Gas: Incinerators
<b>Fiberglass</b>		
30590013	11	Industrial Processes, Mineral Products, Fuel Fired Equipment, Natural Gas: Incinerators
<b>Landfill Gas</b>		
50100410	8	Waste Disposal, Solid Waste Disposal - Government, Landfill Dump, Waste Gas Destruction: Waste Gas Flares
50200601	27	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Landfill Dump, Waste Gas Flares ** (Use 5-01-004-10)
50300601	37	Waste Disposal, Solid Waste Disposal - Industrial, Landfill Dump, Waste Gas Flares
<b>MWC: grocery store</b>		
50300101	575	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Multiple Chamber
50200101	1098	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration, Multiple Chamber
<b>MWC: schools</b>		
50200101	1098	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration, Multiple Chamber
50200102	247	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration, Single Chamber
50200104	16	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration, Conical Design (Tee Pee) Municipal Refuse
<b>MWC: hospitals, medical facilities</b>		
50100505	133	Waste Disposal, Solid Waste Disposal - Government, Other Incineration, Pathological
50100507	6	Waste Disposal, Solid Waste Disposal - Government, Other Incineration, Conical Design (Tee Pee) Municipal Refuse
50200101	1098	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration, Multiple Chamber
<b>MWC: residential (nursing home, apartment, prisons, etc.)</b>		
50300101	575	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Multiple Chamber
50200104	16	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration, Conical Design (Tee Pee) Municipal Refuse
50200301	306	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Apartment Incineration, Flue Fed
50200302	32	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Apartment Incineration, Flue Fed with Afterburner and Draft Controls

# SCCs Grouped by Common Elements (continued)

## MWC: unspecified

50100101	130	Waste Disposal, Solid Waste Disposal - Government, \Municipal Incineration, Starved Air: Multiple Chamber
50100102	98	Waste Disposal, Solid Waste Disposal - Government, Municipal Incineration, Mass Burn: Single Chamber

## Other (unspecified or unclassified)

30609904	39	Industrial Processes, Petroleum Industry, Incinerators, Process Gas
30609901	1	Industrial Processes, Petroleum Industry, Incinerators, Distillate Oil (No. 2)
30590011	6	Industrial Processes, Mineral Products, Fuel Fired Equipment, Distillate Oil (No. 2): Incinerators
30990012	2	Industrial Processes, Fabricated Metal Products, Fuel Fired Equipment, Residual Oil: Incinerators
39990011	4	Industrial Processes, Miscellaneous Manufacturing Industries, Miscellaneous Manufacturing Industries, Distillate Oil (No. 2): Incinerators
50100511	1	Waste Disposal, Solid Waste Disposal - Government, Other Incineration, Trench Burner: Tires
50300106	17	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Trench Burner: Wood
50200507	11	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration: Special Purpose, VOC Contaminated Soil
50300599	31	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Fuel Not Classified
50200506	62	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration: Special Purpose, Sludge
50300506	50	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Sludge
50300114	2	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Modular Starved-air Combustor
50300103	97	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Controlled Air
50300104	5	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Conical Design (Tee Pee) Municipal Refuse
30600906	35	Industrial Processes, Petroleum Industry, Flares, Hydrogen Sulfide

## Sludge

50100506	111	Waste Disposal, Solid Waste Disposal - Government, Other Incineration, Sludge
50200506	62	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration: Special Purpose, Sludge

## Possible SICs for Database Search

### Fiberglass

2221 Broadwoven fabric mills, manmade  
2295 Sealing or insulating tape for pipe, fiberglass coated with tar or asphalt  
2519 Furniture, household: glass and plastics (including fiberglass)  
3088 Hot tubs, plastics or fiberglass  
3089 Awnings, fiberglass and plastic combinations  
3229 Yarn, fiberglass: made in glass plants  
3296 Fiberglass insulation  
3711 Car bodies, including fiberglass  
3995 Burial vaults, fiberglass  
5033 Fiberglass insulation materials - wholesale  
5131 Fiberglass fabrics-wholesale

### Concrete

1611 Highway and street construction  
1741 Masonry and other stonework  
1771 Concrete Work  
1791 Structural steel erection (concrete reinforcement)  
1795 Wrecking and demolition work  
1799 Special trade contractors, nec  
2519 Household furniture, nec, includes concrete  
2531 Other furniture, includes concrete  
2899 Compounds used in making concrete  
3271 Concrete block and brick  
3272 Concrete products, nec  
3273 Ready-mix concrete  
3444 Forms of concrete  
3449 Concrete reinforcements  
3531 Concrete plants and equipment  
3546 Concrete power tools  
3559 Concrete products machinery  
5032 Brick, stone and related materials  
5087 Service establishment equipment, includes concrete burial vaults and boxes  
5211 Lumber and other building materials, includes concrete and cinder block dealers-retail

### MWCs and Landfill Gas Flares

9511 Air, Water, and Solid Waste Management  
4953 Refuse Systems  
4959 Sanitary Services, nec

### Sludge

3589 Sludge Processing Equipment  
3599 Sludge Tables  
4953 Sludge Disposal Sites